


RICE HYDRO, INC.  
MANUFACTURER'S OPERATING INSTRUCTIONS  
TEST PUMP MODEL DP-Series (3/6/8/56-250)  
**FOR WARRANTY REGISTRATION CALL: 1-800-245-4777**

TO ATTACH FLOW METER - CALL FACTORY FOR INSTRUCTIONS

 **WARNING:** Operating, servicing and maintaining this equipment can expose you to chemicals including engine exhaust, carbon monoxide and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. To minimize exposure, avoid breathing exhaust, do not idle the engine except as necessary, operate and service your equipment in a well-ventilated area and wear gloves or wash your hands frequently when servicing your equipment. For more information go to: [www.p65warnings.ca.gov](http://www.p65warnings.ca.gov)

**CAUTIONS:**

1. Check **ALL** fluid levels prior to operating the unit.
2. Use the inlet hose that was supplied, or a similar type suction hose the same size as the inlet piping.
3. NEVER connect the inlet of the pump directly to a pressurized water source.
4. Protect the pump from freezing, FLUSH with anti-freeze after each use.

**CONNECTING THE PUMP:**

1. Check pump oil thru reservoir sight glass, half-way to the top is full. Use 30w non-detergent oil.
2. Check oil level in engine crankcase, use (10W30) as needed.
3. Check oil level in the gear reduction, use (90W) as needed. Oil should be level with the side plugs.
4. On units 6/8 accumulator head is equipped with a valve stem to adjust air pressure of the accumulator diaphragm. Set between 90-120 psi. This is a small cavity and will take very little air to do so.
5. Connect inlet hose assembly provided. The pump MUST be either suction fed (such as out of a barrel), or gravity fed (from a water truck).

**A PRESSURIZED LINE CANNOT BE USED TO SUPPLY WATER TO THE PUMP.**

Never connect the unit to a water source such as a standpipe, hose bib tap water faucet, etc. ... **unless a PRESSURED FEED Tank accessory is added.** The source of water should be within 8-10 ft. maximum.

6. Connect high pressure outlet hose supplied by manufacturer with quick connects or direct fitting as provided. If using a hose other than that supplied by manufacturer, PSI and burst rate must meet or exceed manufacturer's requirements.

### **OPERATING THE PUMP:**

1. Turn the outlet ballvalve to the open position, and start the engine. The engine RPM is preset at the factory, **DO NOT ADJUST!**
2. The pressure regulator has been preset at the factory. **To change this setting you must make this adjustment while the water is flowing freely, and under NO pressure.** To adjust the pressure, first loosen the locknut. Turn the T-handle/Knob clockwise to increase and counterclockwise to decrease the pressure. Place a ballvalve or similar open and close valve at the end of the outlet hose, open and close this valve multiple times as needed, to check pressure setting and re-adjust as necessary. It is also recommended that you open and close the hosebib located under the gauge to bleed excess air from piping and ensure accurate pressure gauge readings. Upon reaching desired pressure setting, tighten locknut and prepare to begin test.
3. With the ballvalve open begin building pressure in the test environment. Be sure to bleed the air from hosebib under gauge at least once during this process. Once test pressure has been reached, **close the ballvalve and shut-off engine.** An inlet checkvalve prevents water pressure from bleeding back into the pump.
4. Once the outlet ballvalve is closed and your test begins, you have now isolated the test pump from the test environment, any loss of pressure is due to leaks or trapped air being compressed in the test environment.

### **REMEMBER THESE CAUTIONS:**

1. Check all fluid levels prior to operating pump.
2. Use the inlet hose that was supplied, or use a suction hose the same size as the inlet piping.
3. NEVER connect the inlet of the pump directly to a pressurized source.
4. Protect the pump from freezing, FLUSH with anti-freeze

### **RECOMMENDED PERIODIC MAINTENANCE PROCEDURE**

1. Change engine oil after the first 80 hours of operation thereafter every 250 hours of use or every season.
2. Change the oil in the pump body after the first 50 hours of operation thereafter every 250 hours.

## ***TROUBLE SHOOTING FOR DP-SERIES HYDROSTATIC TEST PUMP***

### **IF PUMP FAILS TO BUILD PRESSURE:**

1. Look for leaks in water supply hose and connections.
2. Supply hose is too small. Filter may be clogged.
3. Supply hose may be kinked or collapsed. Maximum of 9 feet.
4. The Pump may be sucking air. Small holes in the supply hose are hard to find since the air is drawn inward, therefore no bubbles would be present. Replace the supply hose. Possible loose piping or connections.
5. T-handle/Knob on pressure regulator may be set incorrectly.
6. Faulty pressure gauge, replace.
7. Pump is running too slow. Advance throttle on engine to between 3400-3600 RPM, but no higher.
8. Pipeline being tested may have leaks, or an open valve. Isolate the pump and do a self-test, by placing a ballvalve at the end of the outlet hose.
9. Foreign material may be lodged in a valve, preventing the valve from seating properly. Remove cylinder head. Remove valve assemblies, clean and replace.
10. Airlock. With pump running, open and close bleed valves several times to remove the air that may be trapped in the piping.
11. Diaphragms may be ruptured, oil in crankcase will be milky white. Drain oil from pump and install new diaphragms.
12. No air in accumulator head on models 6/8, reset between 90-120 psi.